STATEMENT FOR THE RECORD

OF

GIL I. KLINGER

ACTING DEPUTY UNDER SECRETARY OF DEFENSE FOR SPACE [DUSD(SPACE)]

ON

THE COMMERCIALIZATION OF SPACE

BEFORE THE

SENATE SUBCOMMITTEE ON SCIENCE, TECHNOLOGY & SPACE
SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION
ROOM 253, RUSSELL SENATE OFFICE BUILDING

MARCH 5, 1998

Not for Publication Until Released by the Committee Good afternoon Mr. Chairman. I appreciate this opportunity to comment on the Department of Defense's role and progress in the commercialization of space, for we recognize that our economic competitiveness is an important component of our national security.

There has been a fundamental shift within DoD in both the launch and use of space systems. In the past we were very involved with the acquisition and operation of these systems. However, with the rising tide of commercial space capabilities, DoD will be able to take advantage of the capabilities of private industry to become a customer for many commercial products and services rather than being exclusively an acquirer and operator of our own systems. Obviously, we will make these decisions on a cost effective and affordability basis, consistent with our operational and other security requirements.

Today I would like to:

- Provide an overview of the U.S. commercial space program from the viewpoint of DoD,
- Comment on four of the major areas of the U.S. space program (i.e., space transportation, communications, remote sensing, and navigation), and
- Close by discussing the increasing importance of space systems to our warfighters.

Overview

The commercial space sector -- which includes launches, spacecraft, satellite services, and ground equipment -- is expanding at an amazing rate. According to the aerospace industry, the worldwide commercial space sector has grown from \$3.2 billion in 1986 to \$26.7 billion in 1996. And it is estimated that this will more than double by the year 2000.

In the past we have encouraged growth in the commercial space industry by:

• Opening up our Federal launch ranges to commercial launch activities. Presently more commercial payloads are being launched from DoD launch sites than national security spacecraft. In the future, DoD's use of its own launch sites will diminish even more due to the anticipated surge in commercial launches, particularly for constellations of low earth orbit commercial communications satellites.

•

- Allowing Global Positioning System (GPS) satellites to be used to provide navigation information to the civil and commercial sectors as well as the national security sector. As an indication of this use, GPS commercial receivers are currently being bought at a rate of 3 million per year.
- Acting as a catalyst and a technology engine in the past for the now robust commercial space program. In the future we plan to utilize, where appropriate, commercial systems to satisfy many of our national security requirements.

•

• Supporting the competitiveness of the U.S. commercial remote sensing industry while simultaneously protecting our national security and foreign policy interests.

In the future, we are planning to increase our use of commercial space goods and services whenever they are cost effective and satisfy our validated requirements.

Space Transportation

We support:

- The creation and use of spaceports on excess federal property to foster more commercial launches, and
- The use of the Evolved Expendable Launch Vehicle (EELV) as a commercial launch vehicle.

Exceptions to this will occur when national security and/or affordability considerations dictate that we manage and operate space launch systems and facilities ourselves or the commercial system is not cost effective in comparison with our own internal capability.

With regard to the use of Federal property for commercial launches, we are now the minority users and will be for the foreseeable future. With the commercial launch site operators, we are beginning to address ways to maintain and recapitalize the launch infrastructure, including the cost of providing safety, security, environmental services, power, water, and operations and maintenance.

Communications

We favor augmenting our military satellite communications (MilSatCom) capability by using commercial communications satellites in cases where those capabilities meet our needs and are cost effective and affordable. In the years immediately

ahead, great strides will be made in the capabilities of new commercial communications satellites, and our desire to use these new capabilities is likely to increase accordingly.

Despite the significant growth in the commercial sector, we will not be able to rely entirely on commercial spacecraft due to the need to ensure a secure and robust communications capability for important national security messages. Currently, the Department is studying commercial alternatives to its own satellite communications systems.

Remote Sensing

The advent of high-resolution commercial remote sensing services opens another area where DoD might leverage commercial systems to meet military requirements. Even as we develop our own unique remote sensing systems, we are mindful of the capabilities of the current and planned commercial remote sensing systems.

Navigation

- GPS has become an important international navigation utility whose civil and commercial applications are rapidly expanding. We are firmly committed to our stewardship of GPS in support of the goals and guidelines of the President's GPS Policy. We will continue to operate GPS to satisfy our policy responsibilities by:
- Maintaining a Standard Positioning Service which will be available on a continuous, worldwide basis,
- Maintaining a Precise Positioning Service for use by the U.S. military and other authorized users, and
- Developing measures to prevent hostile use, to ensure that the United States retains a military advantage without disrupting civil use.

Comments on H.R. 1702

The Department's comments on H.R. 1702 are contained in an OMB Statement of Administration Policy.

Support to the Warfighter

Finally, I would like to conclude my remarks by noting that space systems are now a critical component of successful military operations.

In the future we will confront adversaries who will use space systems to support their forces. Today, other nations can obtain a similar, but lesser, military capability than ours by using existing satellites for communications, remote sensing, and navigation. Most of these spacecraft are commercial satellites. During the next decade more capable commercial satellites will provide even greater military benefits to the United States, our allies, and our adversaries.

We can't afford to let our warfighters down. If we do, lives could be lost due to a lack of sufficient information. We have to ensure that our national security space systems survive through both a crisis and a major conflict. This means that we have to protect them from an adversary. At the same time we have to minimize an adversary's ability to use space systems -- particularly commercial space systems -- against us for military purposes.

In summary, space commerce is rapidly expanding, offering an ever increasing range of benefits to the warfighters and to the nation. We in the Department of Defense are looking for every opportunity to partner with the commercial sector to enhance both national security and economic prosperity.

This concludes my remarks Mr. Chairman.